

Choosing Between Gifts And Bequests:
How Taxes Affect The Timing of Wealth Transfers

by

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Abstract

A number of models have been advanced to explain the size and timing of transfers to children. One factor often overlooked is the effects of taxes on such transfers whereby parents, by comparing taxes on gifts to bequest taxes, may pursue a tax minimization strategy in timing their transfers. In this paper, I trace the tax rules that apply to gifts and bequests, and analytically derive the optimal conditions for each of the two modes of transfers. In addition, and using information on gifts reported on estate tax returns, I examine how taxes influence the timing of transfers by the very wealthy. The findings suggest that taxes are an important consideration in choosing between lifetime gifts and bequests.

1. INTRODUCTION

A number of factors may explain the size and timing of transfers to children. Parents may care about the well-being of their children (Becker, 1974). Alternatively, parents may give simply because they enjoy giving. Parents can also be strategic in the timing of their giving; they may time their transfers so as to extract services from their children not unlike those in Bernheim, Shleifer, and Summers (1985).¹ One factor often overlooked, however, is the taxation of gifts and bequests, whereby parents may pursue a tax minimization strategy in the timing of transfers.

The wealthy are likely to consider the income tax and estate and gift taxes, and compare the tax consequences of gifts to those of bequests, in allocating their wealth between *inter-vivos* gifts and testamentary transfers. Few economists, however, have examined the effects of estate and gift taxation on the timing of transfers.² Fieckowsky (1959, pp. 188) explains how the wealthy may take advantage of differences between estate and gift tax rate schedules. Adams (1978) and Kuehlwein (1994) explore whether bequest and gift taxes are equalized in the timing of transfers. Poterba (1998) further makes the general case for the superiority of gifts, and empirically attempts to isolate their determinants.³

The purpose of this paper is to examine the pattern of wealth transfers by the very wealthy. First, I analytically explore the conditions for the superiority of each of gifts and bequests. In comparing the advantages of one mode of transfer over another, I account for estate, gift, and capital gains taxes. In addition, and using information from estate tax records, I empirically explore whether taxes influence the allocation of transfers between

¹ See McGarry (1999a), Altonji, Hayashi, and Kotlikoff (1997), and Wilhelm (1996) for a review of the literature.

² In contrast, a growing body of the literature has examined the effects of estate taxation on charitable bequests (Boskin, 1976; Feldstein, 1977; Clotfelter, 1985; Joulfaian, 1991 and 2000) and charitable gifts (Auten and Joulfaian, 1996).

³ McGarry (1999b) explores other aspects of gifts. Also see Bernheim (1987).

lifetime gifts and bequests.⁴ Individuals required to file estate tax returns roughly represent the top 1.5 percent of the population, and are typically under-represented in survey data.⁵ The results suggest that taxes are an important consideration in the timing of transfers.

This paper is organized as follows. Section 2 provides a brief description of the federal estate, gift, and income tax treatment of transfers. Section 3 analytically traces the tax treatment of different modes of transfers. Section 4 numerically explores the conditions for the superiority of each of bequests and gifts. Section 5 provides some empirical evidence on the determinants of gifts. A concluding is provided in section 6.

2. THE TAX TREATMENT OF TRANSFERS

2.1. Bequest Taxes

The federal estate tax was enacted in 1916, and applies to stocks, bonds, real estate, businesses, life insurance proceeds, and pension assets (exempt before 1982), among others. Estate expenses, outstanding debts, spousal bequests (limited to 50 percent of the estate prior to 1982) and charitable bequests are deductible in computing the taxable estate. The tax is computed by applying to the taxable estate a rate schedule that ranges from 18 to 55 percent, as shown in the left panel of Table 1. A surtax of 5 percent applies to taxable estates between \$10 million and \$17 million, which, as shown in Table 2, has the effect of creating a marginal tax rate of 60 percent.⁶

The tax is reduced by a number of credits in computing the final tax liability. The largest tax credit is the unified credit set at a value of \$211,300 in 1999, equivalent to an

⁴ I focus on transfers other than those related to education and medical expenses, as well those in excess of the annual exemption (\$10,000) under the gift tax.

⁵ The projected net worth of such individuals in 1992 is \$5 trillion, of which \$1.5 trillion is in corporate equity (Johnson, 1998). The comparable figures from the Flow of Funds for the household (and nonprofit) sector are \$23 trillion and \$2.9 trillion, respectively.

⁶ For an overview of historical developments and a more detailed description of estate and gift taxes, see Joulfaian (1998).

exemption of \$650,000 (\$600,000 for the years 1987-1997).⁷ This has the effect of raising the lowest estate tax rate to 37 percent, as shown in column 1 of Table 2. The second largest credit is that for state death taxes. The credit rate ranges from 0 to 16 percent of the federal taxable estate, as shown in the right panel of Table 1, and has the effect of reducing the maximum statutory federal estate tax rate to 39 percent.⁸

In the case of estates where the value of closely held businesses exceeds 35 percent of terminal wealth, the portion of the estate tax liability attributable to the business can be paid in installments over a period of 14 years, with no principle payable in the first 5 years. The interest rate is set at 45 percent of the applicable interest rate, which is defined as the short term applicable federal rate (AFR) plus three percentage points. At an interest rate of 8 percent, for instance, the estate is charged an interest rate of 3.6 percent only, which effectively reduces the estate tax liability for the wealthiest estates by about 30 percent, using a discount rate of 8 percent.⁹ In addition, and beginning in 1998, estates with closely held businesses such as family owned businesses with a value that exceeds 50 percent of the adjusted gross estate may deduct up to \$675,000 of such interest.¹⁰

⁷ The unified credit is scheduled to increase to \$345,800 in 2006, equivalent to an exemption of \$1 million (see left panel of Table 1).

⁸ The estate tax also provides the heirs with a credit for estate taxes paid in the previous 10 years. If the heir dies within 2 years, for instance, his estate will receive a tax credit equal to 100 percent of the tax paid on the inheritance he had received; 80 percent for 3-4 years, 60 percent for 5-6 years, 40 percent for 7-8 years, and 20 percent for 9-10 years. This credit is especially valuable in the case of transfers to those with short life expectancies such as older generations. Such transfers, however, seldom take place (Joulfaian, 1994).

⁹ The interest rate charged on the tax liability attributable to the first million dollars of taxable estate is set at 2 percent, which reduces the effective tax rate by 40 percent when also using a discount rate of 8 percent.

¹⁰ The combined deduction and exemption by virtue of the unified credit cannot exceed \$1,300,000.

In addition, closely held businesses may exclude up to \$750,000 of real property used in business or farming.¹¹ The exclusion applies to the difference between the fair market value and the value of the property in its current business or farm use. Taxpayers may also take advantage of valuation discounts for minority interest in a property, lack of marketability, or blockage (the adverse effect on the value if large blocks of corporate stock or art collections were sold to pay the estate tax). These valuation discounts are on average about 30 percent.

2.2. Gift Taxes

The federal gift tax was first enacted in 1924, repealed in 1926, re-enacted in 1932, and modified over the years in an attempt to reduce estate and income tax avoidance by initiating inter-vivos gifts. In 1976, statutory gift tax rates were raised to the level of estate tax rates, and the gift tax was integrated with the estate tax, sharing a common tax rate schedule, and unified credit. The tax is computed annually by applying the tax rate schedule to all gifts made during life, with a credit for previously paid gift taxes. An unlimited exemption applies to gifts of tuition and medical expenses, in addition to an annual exemption of \$10,000 per donee.¹²

A unique feature of the gift tax is that it applies on a tax exclusive basis. To illustrate the implications of this, consider an individual with tax rate of 0.5 and wealth of \$300. He transfers \$200 to his child and pays \$100 in gift tax, for total transfers of \$300; the effective tax rate is 0.33, or 100/300, and not 0.5 as under the estate tax where the tax liability would be \$150. Also in contrast to the estate tax, it does not provide a credit for state taxes or the installment method to pay gift taxes.

Valuation practices are particularly favorable in the treatment of transfers of businesses. Transfer of a minority interest in a business may be accorded minority discounts which typically reduce the applicable gift tax by about a third. These lifetime transfers may also put the donor in a position to claim a minority position and additional discounts at death.

¹¹ This exclusion is indexed for inflation beginning in 1998.

¹² This exemption is indexed for inflation beginning in 1998.

2.3. Income Taxes

The income tax treatment of transfers varies as well. In the case of bequests, accrued gains escape capital gains taxation as the donor's basis in assets is stepped up to the value at death. In the case of the gift tax, the beneficiary retains the donor's basis. However, this basis is increased (stepped up) by the amount of gift tax paid on the accrued gains component of the asset transferred.¹³ In addition, the donor may have to pay capital gains taxes on assets liquidated to pay the gift tax. In contrast to the gift tax, liquidating assets to pay the estate tax does not usually trigger capital gains taxes since the basis is stepped up.

3. THE PRICE OF TRANSFERS

Consider very wealthy parents, likely to be subject to the maximum tax rate of 0.55, who wish to transfer wealth V to their children. They may transfer these assets during life as gifts or bequeath them at death. Each of these two modes of transfers has its own tax consequences. These are analytically traced below.

3.1. The Taxation of Gifts

When making a gift of cash, a donor, with wealth V and statutory tax rate τ_g , faces gift taxes of T_G ,

$$T_G = \tau_g (V - T_G) \quad (1)$$

or,

$$T_G = \frac{\tau_g}{1 + \tau_g} V \quad (1')$$

where the effective tax rate is less than the statutory tax rate as gifts are taxed on a tax exclusive basis.

In the case of the wealthy, who hold very little of their assets in the form of cash, the treatment of transfers is more complicated. When wealth is in the form of appreciated assets,

¹³ Prior to 1977, the basis was stepped up by the full amount of the gift tax.

such as stocks, real estate, and business assets, then capital gains taxes may apply in addition to gift taxes. The donor (donee) pays the gift tax by selling a fraction of the asset, which also results in capital gains tax T_D . The latter is defined as:

$$T_D = \tau_c \beta (T_G + T_D) \quad (2)$$

or,

$$T_D = \frac{\tau_c \beta}{1 - \tau_c \beta} T_G \quad (2')$$

where τ_c is the capital gains tax rate, and β is the appreciation component or accrued gains share of the asset. The gift tax paid, T_G , depends on the applicable gift tax rate, τ_g , and the amount received by the beneficiary, $V - T_G - T_D$. The tax is defined as:

$$T_G = \tau_g (V - T_G - T_D) \quad (3)$$

or,

$$T_G = \frac{\tau_g}{1 + \tau_g + \frac{\tau_c \beta \tau_g}{1 - \tau_c \beta}} V \quad (3')$$

Capital gains taxes, T_B , may apply at the disposition of the assets by the beneficiaries, n years in the future. These taxes apply to gains accrued by the donor in the past, and gains accrued by the donee over n years. As stated earlier, the donee retains the donor's basis adjusted for gift taxes. The adjustment is equal to the amount of the gift tax attributable to the amount of gains accrued by the donor, βT_G . More specifically, the present value of future capital gains taxes is defined as:

$$T_B = \frac{\tau_c [\beta (V - T_G - T_D) - \beta T_G]}{(1 + \delta)^n} + \frac{\tau_c (V - T_G - T_D) [(1 + \pi)^n - 1]}{(1 + \delta)^n} \quad (4)$$

or, using (2') and (3'),

$$T_B = \frac{\frac{\tau_c \beta (1 - \tau_g)}{(1 + \delta)^n} + \frac{\tau_c [(1 + \pi)^n - 1]}{(1 + \delta)^n}}{1 + \tau_g + \frac{\tau_c \beta \tau_g}{1 - \tau_c \beta}} V \quad (4')$$

where π is the rate at which the asset appreciates, and δ the discount rate. The first term measures the capital gains tax on gains accrued by the donor and the second term the tax on gains accrued by the beneficiary.

The combined sum of capital gains and gift taxes is $T_D + T_G + T_B$, or:

$$\text{GIFTAX} = \left(\frac{\tau_g + \frac{\tau_c \beta \tau_g}{1 - \tau_c \beta} + \frac{\tau_c \beta (1 - \tau_g)}{(1 + \delta)^n} + \frac{\tau_c [(1 + \pi)^n - 1]}{(1 + \delta)^n}}{1 + \tau_g + \frac{\tau_c \beta \tau_g}{1 - \tau_c \beta}} \right) V \quad (5)$$

It follows that the true gift tax rate, the bracketed term in (5), reflects the statutory gift tax rate, the capital gains tax rate, the appreciation rate, the discount rate, and the holding period n . Note that if the donor dies within 3 years, the gift tax itself becomes taxable under the estate tax, for an additional tax of $\tau_e T_G$, and gifts lose much of the benefit of getting taxed on a tax exclusive basis. GIFTAX becomes,

$$\text{GIFTAX} = \left(\frac{\tau_g + \frac{\tau_c \beta \tau_g}{1 - \tau_c \beta} + \frac{\tau_c \beta (1 - \tau_g)}{(1 + \delta)^n} + \frac{\tau_c [(1 + \pi)^n - 1]}{(1 + \delta)^n} + \frac{\tau_e \tau_g}{(1 + \delta)^n}}{1 + \tau_g + \frac{\tau_c \beta \tau_g}{1 - \tau_c \beta}} \right) V \quad (5')$$

The present value of the after-tax gift available to the beneficiary is defined as:

$$\text{GIFT} = (V - T_G - T_D) \frac{(1 + \pi)^n}{(1 + \delta)^n} - T_B - \frac{\tau_e T_G}{(1 + \delta)^n} \quad (6)$$

where the first term reflects the value of the gift received by the donee, enhanced by tax-deferred appreciation at the rate π , and reduced by future capital gains and estate taxes. This can be re-written as:

$$\text{GIFT} = \frac{(1 + \pi)^n - \tau_c \beta (1 - \tau_g) - \tau_c [(1 + \pi)^n - 1] - \tau_e \tau_g}{(1 + \delta)^n (1 + \tau_g + \frac{\tau_c \beta \tau_g}{1 - \tau_c \beta})} V \quad (6')$$

where the last term in the numerator drops when $n > 3$. The donee receives GIFT at a cost of V to the donor. Thus, the tax price of a transfer is V/GIFT , or:

$$P_G = \frac{V}{\text{GIFT}} = \frac{(1 + \delta)^n (1 + \tau_g + \frac{\tau_c \beta \tau_g}{1 - \tau_c \beta})}{(1 + \pi)^n - \tau_c \beta (1 - \tau_g) - \tau_c [(1 + \pi)^n - 1] - \tau_e \tau_g} \quad (7)$$

3.2. The Taxation of Bequests

If these assets were to be transferred at death instead, m years into the future, then, using tax rate τ_e , the present value of the estate tax due would be:

$$T_E = \frac{\tau_e V (1 + \pi)^m}{(1 + \delta)^m} \quad (8)$$

which reflects the tax-free appreciation in assets at the rate π . No additional taxes apply if the heirs immediately sell the assets. After-tax bequests are

$$BEQ = \frac{(1 - \tau_e)V(1 + \pi)^m}{(1 + \delta)^m} \quad (9)$$

at a cost of V to the donor. The tax price of bequests can be stated as:

$$P_B = \frac{V}{BEQ} = \frac{(1 + \delta)^m}{(1 + \pi)^m (1 - \tau_e)} \quad (10)$$

similar to that in Boskin (1976).

4. COMPARING GIFTS AND BEQUESTS

To facilitate the comparison between gifts and bequests, I set $m = n$; heirs sell assets immediately after death. The donor will choose bequests over lifetime gifts as long as $GIFT < BEQ$, or $P_B < P_G$, up to the point where the two are equalized. Assuming $n > 3$, and using (6) and (9), or (7) and (10), define the ratio of after-tax bequests to after-tax gifts, or the relative price, as:

$$\frac{BEQ}{GIFT} = \frac{P_G}{P_B} = \frac{(1 - \tau_e)(1 + \pi)^n}{\frac{(1 + \pi)^n - \tau_c \beta (1 - \tau_g) - \tau_c [(1 + \pi)^n - 1]}{1 + \tau_g + \frac{\tau_c \beta \tau_g}{1 - \tau_c \beta}}} \quad (11)$$

When the asset transferred is cash, and the beneficiaries continue to hold cash, equation (11) simplifies to $(1 + \tau_g)(1 - \tau_e)$.

From (11), we observe that the discount term drops out; the relative price would be identical regardless of whether all streams are discounted to the present or compared using their future values in year n . The advantage of one mode of transfer over another critically depends on the values of the various parameters in (11). Bequests are preferable to gifts when this ratio exceeds one, as the inheritance received by the heirs will exceed the after-tax gifts

received. It can be easily demonstrated that the advantages of bequests rise with capital gains and gift tax rates, and decline with the estate tax rate. More formally, and as shown in appendix A, we should expect the relative price of gifts to rise with capital gains and gift taxes, and decline with the estate tax; $\partial(\text{BEQ}/\text{GIFT})/\partial\tau_c = \partial(P_G/P_B)/\partial\tau_c > 0$, $\partial(P_G/P_B)/\partial\tau_g > 0$, and $\partial(P_G/P_B)/\partial\tau_e < 0$. This is further illustrated in Figure 1, which assumes $n=20$, $\beta=0.5$, and $\pi=0.08$.

4.1. Basic Comparisons

To numerically compare the advantages of bequests over gifts, I assume that assets appreciate at the rate $\pi=0.08$. The capital gains tax rate is set at $\tau_c=0.25$, which approximates the combined state and federal tax rates. Federal estate and gift tax rates are set at 0.55, or $\tau_e=\tau_g=0.55$. When the computed ratio in (11) equals one, estate and gift tax prices are equalized; bequests are preferable to gifts when it exceeds one, and when it is less than one, gifts are preferable.

Table 3A reports values for the relative price of gifts, or the ratio of BEQ to GIFT, for values of β ranging from 0 to 1, with values of n ranging from 0 to 40 years. As demonstrated, the advantages of making bequests, or gifts, depend on the size of accrued gains and the length of n . Gifts are generally preferable, but their desirability diminishes with the size of accrued gains, β , and n .

Capital gains taxes, and as already demonstrated in Appendix A and Figure 1, go a long way in bridging the gap between the tax treatments of gifts and bequests. Table 3B replicates the figures in Table 3A but sets the capital gains tax rate to zero ($\tau_c=0$). The reported relative price or the ratio of after-tax bequests to after-tax gifts (BEQ/GIFT) drops across the board by as much as a third. Except in the rare case of instant death, $n=0$, gifts are by far superior.

4.2 State Gift Taxes

The comparisons reported in Table 3A do not account for state gift taxes. The majority of states either never enacted gift taxes or had them repealed many years ago. Only 6 states

taxed lifetime gifts in 1999. These rates, as reported in Table 4A, range from 3 percent in Louisiana to 21 percent in New York.¹⁴ In contrast to the estate tax, and as discussed earlier, the federal gift tax does not offset these state taxes by a credit. In the case of state estate and gift tax rates of 16 percent, for instance, the combined state and federal statutory gift tax rate is 0.71, or $0.55 + 0.16$, while the estate tax rate is 0.55, or $(0.55 + 0.16) - 0.16$.

Table 4 reports the ratio of after-tax bequests to gifts using state gift tax rate of 0.16 and estate tax rate of 0.031, which are equal to the wealth weighted average maximum tax rates in the six states.¹⁵ Not surprisingly, state gift taxes, by increasing the cost of gifts, make inter vivos transfers less attractive than the base case reported in Table 3A. While these results would vary from state to state, depending on the tax rates in place, the same tendencies should be observed; state gift taxes reduce the attractiveness of gifts. However, the effect of these taxes is only relevant for the residents of six states, at least in 1999.

4.3 The dynamics of Inter-Spousal Transfers

The dynamics of spousal transfers are of special interest as about one third of the terminal wealth of the wealthiest of decedents is bequeathed to surviving spouses.¹⁶ Because of differences in the tax treatment of transfers to spouses and children, and as an alternative to gifts, a parent may bequeath wealth to his widow and pay any applicable estate taxes. In turn, the surviving spouse immediately gives the assets to her children and pays the applicable gift tax, but avoids capital gains taxes as the basis in the underlying asset is stepped up. Under this strategy, the tax is:

¹⁴ Also included are the states of South Carolina and Wisconsin which repealed their gift taxes effective in 1992.

¹⁵ Wealth data for each of the six states are obtained from Eller (1997, Table 5, column 2). These six states account for about 17 percent of the national terminal wealth reported on estate tax returns.

¹⁶ See Joulfaian (1998, n. 44).

$$T_{E,W} = \frac{\left(\tau_e + (1 - \tau_e) \frac{\tau_g}{1 + \tau_g} \right) V(1 + \pi)^n}{(1 + \delta)^n} \quad (14)$$

Under current law, married couples can take advantage of preferential tax rules that apply to spousal transfers. In the presence of the unlimited marital deduction ($\tau_e = 0$), which was enacted in 1981, and because assets get stepped up at death ($\tau_c = 0$), it is optimal for a parent to bequeath his wealth to his spouse who in turn immediately gives it to her children. The tax on such bequests is:

$$T_{E,W} = \frac{\left(\frac{\tau_g}{1 + \tau_g} \right) V(1 + \pi)^n}{(1 + \delta)^n} \quad (15)$$

and her children get to keep

$$BEQ_W = \frac{\left(\frac{1}{1 + \tau_g} \right) V(1 + \pi)^n}{(1 + \delta)^n} \quad (16)$$

To evaluate the superiority of this mode of transfers over gifts, I divide BEQ_W by GIFT and report the results in Table 5. As with the earlier Tables, a value exceeding one shows that the heirs are better off by having gifts deferred and transferred by the surviving spouse. Table 5 demonstrates that, regardless of n and β , this strategy should dominate the lifetime giving by married couples; $BEQ_W > GIFT$. This entire scheme, however, hinges on the cooperation of the surviving spouse.

The advantages of this strategy are potentially even greater in community property states.¹⁷ When an individual dies holding community property, the surviving spouse receives a stepped up basis not only on the share of the property “owned” by the deceased spouse, but also on the share of the property already attributable to the surviving spouse.¹⁸ The surviving spouse is able to transfer her own assets free of capital gains taxes.

4.4. Transfers of Closely held Businesses

A. Transfers of Fractional Interests

As mentioned earlier, valuation discounts may apply to transfers of businesses. These may reflect lack of control and lack of marketability, as well as blockage. These discounts, which are generally in the range of 30 percent, have the effect of reducing the effective estate and gift tax rates. In the case of bequests, however, such discounts may subject heirs to future capital gains taxes (T_F) on gains not stepped up. The amount of this additional tax is equal to:

$$T_F = \frac{\tau_c f V (1 + \pi)^n}{(1 + \delta)^n} \quad (17)$$

where f is the fraction of wealth that escapes estate taxation. The combined taxes on bequests is $T_E + T_F$, which, using (9) and (17), yields after-tax bequests of:¹⁹

$$BEQ_F = \frac{(1 - \tau_e - \tau_c f)(1 + \pi)^n}{(1 + \delta)^n} V \quad (18)$$

¹⁷ Community property states are Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, and Washington.

¹⁸ See Code Section 1014(b)(6).

¹⁹ The estate tax rate should be defined as $\tau_e(1-f)$. For presentation purposes, I use τ_e to reflect the effective tax rate net of discounts. A similar treatment is extended to the gift tax.

The individual may transfer all wealth during life, all at death, or some combination. To simplify the presentation, I assume that the individual chooses between fractional transfers of the entire business during life and lump sum bequests. In either case, I assume a valuation discount (f) of 30 percent applies, which reduces statutory estate and gift tax rates to $\tau_e = \tau_g = 0.385$.

Table 6A reports values for the ratio of bequests to gifts. The estimates show that bequests are generally superior to gifts for all values of β and n . This outcome should not be surprising since capital gains taxes on gifts become more important at lower estate and gift tax rates. Because discounts may not always be available at death, as an alternative strategy, for instance, one may engage in lifetime transfers of fractional business interests to be able to take advantage of minority discounts both on gifts and on the residual assets at death. Under these circumstances, a strategy of giving in life and at death may dominate.

B. Deferral of Estate Tax

Unlike the gift tax, the estate tax may be paid in installments over a period of 14 years at below market interest rates. If we set the individual discount rate at the applicable Federal interest rate of say 8 percent, then the present value of the stream of future payments is approximately equivalent to 70 percent of the statutory estate tax liability, and has the effect of reducing the statutory estate tax rate τ_e from 0.55 to 0.383. However, given our assumptions in deriving equation (11), whereby assets are disposed of at the date of death, taxpayers will not benefit from this deferral of tax and the results reported in Table 3A will hold ($\tau_e = 0.55$).²⁰

Since some of these businesses are likely to remain in the family for a number of years, I relax the above assumptions, and assume that the donor dies in year m and the heirs dispose of the assets in year n , where $m \leq n$. It follows that additional capital gains taxes may apply on gains accrued between the date of death (m) and the date the assets are disposed of by the heirs (n), and equation (9) is re-written as:

²⁰ Sale triggers acceleration of remaining payments. However, the estate may continue to benefit from the deferral of tax so long as the heirs do not dispose of (withdraw) 50 percent or more of the interest in the business transferred. See Code Sec. 6166(g)(1).

$$BEQ_{BUS} = (1 - \tau_e)V(1 + \pi)^m \left(\frac{(1 + \pi)^{n-m}}{(1 + \delta)^n} - \frac{\tau_c[(1 + \pi)^{n-m} - 1]}{(1 + \delta)^n} \right) \quad (19)$$

The last term in (19) measures the appreciated value of after-tax bequests through period n reduced by capital gains taxes on gains accrued over the years $n-m$.

To compare after-tax bequests in (19) to after-tax gifts in (6), I assume that the heirs continue running the business and the assets are disposed of 20 years after the date of death; $n-m=20$.²¹ The ratio of the two transfers are reported in Table 6B which shows that, when accrued gains are sizeable, gifts are inferior to bequests almost at every point in time.

Closely held businesses may combine the benefits from deferral of the estate tax and valuation discounts. This may result in a lower effective estate tax rate ($\tau_e \approx 0.27$), and bequests will be preferable to gifts at every point in time. It should be noted, however, that few estates benefit from the deferral provision. Of the 60,000 estates of decedents filing tax returns, out of over two million adult decedents in 1992, only 716 estates opted to pay the estate tax in installments (Eller, 1997); few decedents seem to leave behind interests in closely held businesses that exceeds 35 percent of terminal wealth.

5. EMPIRICAL EVIDENCE

Consider the case of parents who wish to transfer wealth W to their children. They choose how to allocate this wealth between gifts and bequests so as to maximize their utility, $U(G, B)$. This is maximized subject to the budget constraint that the sum of expenditures on gifts and bequests do not exceed wealth, W , or:

$$P_G G + P_B B \leq W$$

From the first order conditions, it follows that wealth is allocated between gifts and bequests at the point where the marginal rate of substitution is equal to the relative price, or:

²¹ Qualitatively similar results are obtained when $n-m$ is set to a value different from 20.

$$\frac{U_G}{U_B} = \frac{P_G}{P_B}$$

In this very simple framework, the share of wealth transferred during life is directly determined by the relative price of gifts, as defined in equation (11). The challenge here is to obtain data that provide information on transfers during life and at death, and contain sufficient information to construct the price measure.

5.1 Data Sources

To empirically verify the effects of taxes on the mode of transfers, I employ data drawn from the estate tax returns of decedents in 1989. The sample is limited to the estates of parents with total assets in excess of \$600,000, the filing threshold in 1989. Estate tax returns provide information on wealth and its composition. Information is available on assets held, debts, funeral expenses, and expenses of settling the estate such as attorney fees, and executor commissions. They also provide information on the cumulative amount of lifetime taxable gifts made through 1989. These gifts are transfers in excess of the annual exclusion, and do not include payments for education and medical expenses, all of which are tax free. Demographic information is available on age of the decedent, marital status, gender, number and relationship of beneficiaries, and state of residency. I exclude observations with negative net worth and those under age 40.

Wealth is defined as the maximum amount that can be transferred, and is measured as net worth at death less life insurance proceeds and estate expenses, plus lifetime gifts and gift taxes. Business ownership is measured as the fraction of the estate in the form of farm, noncorporate businesses, and closely held corporate stock.

For each individual, the marginal federal estate tax rate is computed by adding \$1,000 to wealth using 1987 law and assuming all wealth is transferred to the children at death. Conversely, the marginal federal gift tax rate is computed assuming all wealth is transferred during life. The federal capital gains tax rate is set equal to the maximum statutory rate of 0.28 in 1987.

Federal tax rates are augmented with state estate, gift, and capital gains tax rates also in effect in 1987.²² For each of the 50 states and the District of Columbia, I compute the estate tax rate net of the federal credit for state death taxes. All jurisdictions tax bequests as they set the federal credit as their minimum tax. In 1987, twenty-five states employed a “pick-up” tax where the state tax liability is set equal to the maximum available federal tax credit as described in the right panel of Table 1.²³ The net tax rate for these jurisdictions is zero. Seven states levied their own estate taxes, while the remaining 19 states levied inheritance-type taxes. Appendix B provides the tax rate schedule for these states, before applying the federal credit, while Appendix C provides the gift tax rate schedule in effect in seven states.²⁴ The capital gains tax rate is set equal to the maximum tax rate in effect in each of the 51 jurisdictions. These are reported in Appendix D and reflect those in Bogart and Gentry (1995). The combined federal and state tax rate is computed as $0.28 + (1-0.28)\tau$, which accounts for the deductibility of state income taxes.

A common problem encountered in studies of the effects of taxes on economic behavior is how to identify the tax price effects separately from the effects of income (Feenberg, 1987), or wealth in this case. This problem arises because the marginal tax rate can be determined by other regressors, wealth in particular, which confounds the measurement of tax effects. The issue at stake is whether the estimated coefficient on the tax price truly captures the tax effects or does it also reflect the wealth effects as well; this problem is especially onerous in the case of cross-sectional data. To overcome this identification problem, I use the combined

²² The results reported below are little affected when 1989 law, the year of death, is used.

²³ These states are Alabama, Alaska, Arizona, Arkansas, California, Colorado, District of Columbia, Florida, Georgia, Hawaii, Illinois, Maine, Minnesota, Missouri, Nevada, New Mexico, North Dakota, Oregon, Texas, Utah, Vermont, Virginia, Washington, West Virginia, and Wyoming.

²⁴ The taxable estate and gifts ranges are stretched to accommodate the schedules of the various state. Both estate and gift tax schedules are obtained from the Advisory Commission on Intergovernmental Relations (1987, p. 71). The rate schedule for taxable estates under \$300,000, and the applicable estate and gift exemptions, are not reported.

maximum federal and state statutory estate and gift tax rates to construct a tax price instrument.

The computed tax rates are incorporated in equation (11) to compute the relative price of gifts. This measure, however, is likely to be sensitive to the composition of wealth. If wealth is mostly cash or equivalent, then $\beta = \tau_c = 0$. Thus, the price is computed as a weighted average price of cash and noncash transfers using portfolio shares as weights.²⁵ For non-cash assets, the share of accrued gains (β) is set equal to 0.5.²⁶ Furthermore, assets are assumed to appreciate at the rate $\pi = 0.08$ over individual life expectancies.

5.2. Basic Statistics

Table 7 provides sample statistics for select variables. For the sample of 2355 estates, we observe mean wealth of \$11 million, with a standard deviation of \$23.5 million. The mean gift is \$0.3 million, which represents about 2 percent of wealth.²⁷ The average age is 77.6 years, measured at 1987 levels, with 45 percent of the individuals widowed. Estate and gift tax rates are about 50 percent, and the capital gain tax rate is 31 percent; the average tax price is 0.88. On average, business assets represent about 13 percent of the gross estate.

Columns 2 and 3 of Table 7 provide similar statistics for those with and without gifts. About 60 percent of the sample, or 1,428 estates, did not report lifetime gifts. The mean wealth is \$8 million. On average, these individuals are 74.5 years old, with 41 percent widowed. In contrast, those who reported gifts are much wealthier and slightly older. The

²⁵ Ideally, the share of assets in the estate plus those transferred during life should be used. The assets composition of the latter, however, is not observed.

²⁶ This is based on data from long-term gains realized in 1985 (Auten and Wilson, 1999, pp. 125). Following a tax minimization strategy, as in Balcer and Judd (1987), individuals may sell assets with high basis and hold those with low basis until death. Thus β is likely to be larger in the case of assets not traded. The estimated effects are slightly larger when higher values of β are employed.

²⁷ Recall that these gifts are in excess of the annual exclusion (\$10,000) and do not include transfers to cover medical and education expenses.

mean wealth is \$15 million with mean age of 77.4 years. The average gift is about \$0.75 million, with a ratio of gifts to wealth of 5.2 percent. They face slightly higher estate and gift tax rates and slightly lower capital gains tax rates. The relative price of gifts is 0.85, smaller than the price of 0.93 for non-donors. Little variation is observed in the business share of wealth.

Table 8 provides further detail on the pattern of gifts disaggregated by size of wealth. The top panel shows the pattern of giving and the associated attributes of donors. The average gift rises with wealth, but without a clear pattern for the fraction of wealth transferred. Estate and gift tax rates peak, and the relative price hits a low, at wealth levels between \$10 and \$20 million, roughly the bubble range. Also business ownership generally seems to rise with wealth.

When compared to the tabulations in the middle panel, donors are more likely to be widowed, and are slightly older. They face higher gifts tax rates, but also face higher estate tax rates with slightly lower capital gains rates. More importantly, donors face lower prices in every wealth group.

Turning to all individuals in the sample, the bottom panel of Table 8 shows that the relative frequency of gifts rises with wealth. In addition, both the amount and the fraction of wealth transferred during life rise with wealth, consistent with the top panel of Table 8. These figures also show the share of business assets to rise with wealth.

Both Tables 7 and 8 show that those who make lifetime gifts face lower prices of gifts. Table 9 provides further evidence on the effects of the tax price on the probability of making gifts. It breaks down the sample by size of the relative price of gifts, ranging from a price below 0.75 to a price above 1.10. Over half of those who face a price below 0.8 provide for lifetime gifts. This fraction gradually declines to a low of 6 percent when the price is over 1.10, a pattern consistent with a tax minimization strategy.

5.3. Multivariate Analyses

I resort to multivariate analysis to shed further light on the determinants of gifts and gauge the effects of taxes. I estimate generalized and FIML Tobit equations to explore the

determinants of lifetime gifts, and report the results in Table 10. While the tax price is the primary variable of interest, the explanatory variables also include wealth, marital status, age, number of children, and business ownership.

Beginning with generalized Tobit, column 1 of Table 10 provides Probit IV estimates, where the price instrument is constructed using the maximum state and federal estate and gift tax rates. The estimates show that the probability of making gifts rises with wealth. The estimated coefficient is 0.41 with a corrected standard error of 0.04. This suggests that the probability of making a gift rises by 0.15 percentage points for every one percent increase in wealth.

Married parents are less likely to engage in lifetime transfers than their widowed counterparts, consistent with the basic statistics in Tables 7 and 8. The estimated coefficient is -0.3 with standard error of 0.06. When compared to widowed individuals, the probability of making gifts is 11 percentage points lower. This pattern is consistent with the tax minimization strategy suggested in Table 5. However, it is not clear whether parents are engaged in a tax minimization strategy or just that married couples have an additional heir.

The estimated coefficient on the number of children is positive but not precisely measured. Those under the age of 55 are less likely to give than their older counterparts. Otherwise, age has no significant effect on giving. Business ownership also has a positive, albeit imprecisely measured, effect on giving.

The probability of reporting gifts declines with the relative tax price, consistent with a tax minimization strategy. The estimated coefficient is -0.97 with a standard error of 0.40. The marginal effect is -0.36; for every one percent increase in the relative price, the probability of making gifts drops by 0.36 percentage points.

The second column of Table 10 reports 2SLS estimates of the level of gifts, augmented with the inverse mill's ratio with corrected standard errors. The share of wealth transferred during life rises with wealth, but the estimated coefficient is not precisely measured consistent with the pattern reported in the top and bottom panels of Table 8. Gifts are greatest for widowed individuals. Conditional on positive gifts, the fraction of wealth transferred is five

percentage points lower for married individuals. Business ownership seems to have little effect on giving.

The estimated coefficient on the price of gifts is -0.2 with a standard error of 0.07; the implied elasticity with respect to the price is -3.9, evaluated at mean values. For the most part, these findings are reinforced in the FIML Tobit estimates reported in the last column of Table 10. The estimated coefficient on price is -0.13 (se= 0.04), which implies a price elasticity of -2.1.

A. Alternative Estimates

A primary assumption in the above estimates is that parents choose between transferring their wealth to their children during life and at death. No allowance is made for inter-spousal transfers or the consumption of wealth by the surviving spouse. The latter may reduce the size of wealth available for intergenerational transfers, and lead to an erroneous measure of the tax price. As a robustness check on the estimates, and their sensitivity to the treatment of spouses, Table 10 is reproduced by excluding married individuals from the sample. For the sub-sample of 1,055 widowed individuals, the estimated coefficients on the price are -1.10 (se= 0.67) in the Probit IV, -0.24 (se= 0.09) in the 2SLS, and -0.19 (se= 0.07) in the Tobit equation. These estimates are fairly similar to those reported in Table 7.

The earlier estimates in Table 10 are potentially biased if some individuals have changed their state of residence. In this case, an individual may have made gifts in one state but died in another state. In a typical example, consider the case of a New York resident, a state with a gift tax in the sample period, who makes lifetime gifts and then retires to sunny Florida, a state without a gift tax. The data would show a Florida resident to have made lifetime gifts and lead to an erroneous measure of the gift tax. As a test of the robustness of the above results, I exclude estates with reported Florida residency. The estimated coefficient on the price becomes -1.0 (se= 0.44) in the Probit IV, -0.20 (se= 0.09) in 2SLS, and -0.13 (se= 0.04) in Tobit, virtually identical to those reported in Table 10.

The estimated equations in Table 10 are further replicated by replacing the relative price of gifts with the maximum gift tax rate. The estimated coefficients on the tax rate are -

0.753 (se= 0.379) for the Probit criterion equation, -0.106 (se= 0.06) for the level equation, and -0.074 (se= 0.035) for FIML equation, respectively. Using the maximum capital gains tax rate instead yields -5.0537 (se= 0.1346), -0.2955 (se= 0.2129), and -0.4007 (se= 0.102), respectively. These estimates, which ignore life expectancies and the interaction between the various taxes implicit in (11), are qualitatively similar to those reported in Table 10.

B. Some Simulations

Using equation (11), I employ the parameters from Table 10 to simulate the effects of a number of tax regimes. First, I set estate, gift, and capital gains tax rates to their maximum values under current law, or 0.55, 0.55, and 0.25. I assume a time horizon of 20 years ($n=20$), $\beta=0.5$, and use the sample mean cash share of wealth of 0.28. The estimated elasticities suggest that if gifts were to be taxed on a tax inclusive basis, lifetime transfers would decline by 75 percent using FIML estimates, and eliminate them altogether using 2SLS estimates. This would also require setting the gift tax rate to 1.22, which is equivalent to an estate tax rate of 0.55 on a tax inclusive basis. While this regime equalizes estate and gift taxes, capital gains taxes continue to apply in the case of gifts.

As an alternative, I consider taxing capital gains at ordinary rates ($\tau_c=0.45$). As demonstrated earlier, this change raises the price of gifts as it reduces the benefit of taxing gifts on a tax exclusive basis. FIML estimates suggest that this change reduces gifts by 47 percent, and almost eliminate them altogether using 2SLS estimates.

Not surprisingly, these estimates suggest that much of the lifetime transfers by the wealthy are tax motivated. These estimated effects are in harmony with the observed historical pattern of gifts. In 1976, for instance, the maximum gift tax rate was increased from 0.5775 to 0.7 effective on January 1, 1977. In anticipation of the increase in gift tax rates at the beginning of 1977, gifts increased substantially in 1976. Gift tax receipts were \$1.8 billion in 1976 (1977 fiscal year) compared to \$0.4 billion in 1975, and dropped to \$159 million in 1977. See Joulfaian (1998, Table 17 and Figure 3).

While these findings suggest that taxes are an important consideration in the timing of transfers, they are subject to a number of caveats. Because gifts in this data represent transfers

over a lifetime, or at least over the 1977-1989 period, the resulting aggregation bias may preempt us from accurately gauging the effects of taxes. This is especially the case as income and transfer tax regimes have changed over the years. On the other hand, and notwithstanding the aggregation bias, cumulative lifetime transfers are essential in computing tax rates.

6. CONCLUSION

This paper traces the tax treatment of different modes of wealth transfers, with a special emphasis on the behavior of the rich. After accounting for a number of features of the tax Code, including those of the income, estate, and gift taxes, the paper explores the conditions for the superiority of each of gifts and bequests. Capital gains taxes, in addition to gift taxes, can seriously raise the cost of gifts. In particular, it is less optimal for married couples to make gifts than their widowed counterparts, who may avoid estate taxes and benefit from the step up in basis at death.

The empirical results demonstrate that taxes have significant effects on the timing of transfers. This finding suggests that the wealthy seem to pursue a tax minimization strategy in the timing of transfers, which adds another dimension to the literature on intergenerational transfers. While addressing how taxes influence the disposition of wealth, however, this paper does not examine how wealth accumulation itself might be affected by taxes (Stiglitz, 1983; Holtz-Eakin, 1996). Given the large concentration of wealth in the hands of top wealth-holders, future research should explore these effects.

REFERENCES

- Adams, James D. "Equalization of True Gift and Estate Tax Rates," *Journal of Public Economics* 9, 1978, 59-71.
- Advisory Commission on Intergovernmental Relations. *Significant Features of Fiscal Federalism*, 1988 Edition, Volume I, Washington, DC, 1987.
- Altonji, Joseph G., Hayashi, Fumio, and Laurence J. Kotlikoff. "Parental Altruism and Inter Vivos Transfers: Theory and Evidence," *Journal of Political Economy* 105(6), 1997, 1121-66.
- Auten, Gerald, and David Joulfaian. "Charitable Contributions and Intergenerational Transfers," *Journal of Public Economics* 59, 1996, 55-68.
- Auten, Gerald, and Janette Wilson, "Sales of Capital Assets Reported on Individual Income Tax Returns, 1985," *SOI Bulletin*, Spring 1999, 113-136.
- Balcer, Yves and Kenneth L. Judd, "Effects of Capital Gains Taxation on Life-Cycle Investment and Portfolio Management," *Journal of Finance* 42(3), July 1987, 743-58.
- Becker, Gary S. "A Theory of Social Interactions," *Journal of Political Economy* 82, 1974, 1063-1093.
- Bernheim, Douglas B. "Does the Estate Tax Raise Revenue?" in Lawrence H. Summers (ed.), *Tax Policy and the Economy*, Volume 1, Cambridge, Massachusetts: The MIT Press, 1987.
- Bernheim, Douglas B., Shleifer, Andrei, and Lawrence Summers H. "The Strategic Bequest Motive," *Journal of Political Economy* 93(6), 1985, 1045-1076.
- Bogart, William and William Gentry. "Capital Gains Taxes and Realizations: Evidence from Interstate Comparisons," *Review of Economics and Statistics* 77, No. 2, May 1995, 267-282.
- Boskin, Michael J. "Estate Taxation and Charitable Bequests," *Journal of Public Economics* 5, 1976, 27-56.
- Clotfelter, Charles T. 1985, *Federal Tax Policy and Charitable Giving* (University of Chicago Press, Chicago).
- Eller, Martha Britton. "Federal Taxation of Wealth Transfers, 1992-1995," *SOI Bulletin*, Internal Revenue Service, Statistics of Income, Winter 1996-97, Washington, DC 1997.
- Fiekowsky, Seymour. *Economics of Death Taxes in the United States*, Unpublished Dissertation, Harvard University, 1959.

Feldstein, Martin. "Charitable Bequests, Estate Taxation, and Intergenerational Wealth Transfers," in Research Papers, sponsored by the Commission on Private Philanthropy and Public Needs, vol. III, Special Behavioral Studies of Foundations and Corporations, U.S. Department of the Treasury, 1977, 1485-1500.

Holtz-Eakin, Douglas. "The Uneasy Empirical Case for Abolishing the Estate Tax," paper presented at the 1996 New York University Tax Law Review Colloquium, 1996.

Johnson, Barry W. "Personal Wealth, 1992-1995," Statistics of Income Bulletin, Winter 1997-1998, Washington, DC, 1998, 70-95.

Joulfaian, David. "The Federal Estate and Gift Tax: Description, Profile of Taxpayers, and Economic Consequences," OTA Paper no. 80, U.S. Department of the Treasury, December, 1998, <http://www.treas.gov/ota/ota80.pdf>.

Joulfaian, David. "The Distribution and Division of Bequests: Evidence from the Collation Study," OTA Paper no. 71, U.S. Department of the Treasury, 1994, <http://www.treas.gov/ota/ota71.pdf>.

Joulfaian, David. "Estate Taxes and Charitable Bequest by the Wealthy," National Tax Journal, forthcoming, 2000.

Joulfaian, David. "Charitable Bequests and Estate Taxes," National Tax Journal 44, June 1991, 169-180.

Kuehlwein, Michael. "The Non-Equalization of True Gift and Estate Tax Rates," Journal of Public Economics 53, 1994, 319-323.

McGarry, Kathleen. "Inter vivos Transfers and Intended Bequests," Journal of Public Economics 73, 1999a, 321-352.

McGarry, Kathleen. "The Cost of Equality: Unequal Bequests and Tax Avoidance," Journal of Public Economics, 1999b, forthcoming.

Poterba, James. Inter Vivos Transfers and the Incentive Effects of Estate and Gift Taxes in the United States, MIT, 1998, mimeo.

Stiglitz, Joseph E. "Notes on Estate Taxes, Redistribution, and the Concept of Balanced Growth Path Incidence," Journal of Political Economy 8, 1978, 5137-150.

Wilhelm, Mark O. "Bequest Behavior and the Effect of Heirs' Earnings: Testing the Altruistic Model of Bequests," American-Economic-Review; 86(4), September 1996, 874-92.

Table 1							
Estate/Gift Tax and State Death Tax Credit Rate Schedules							
Estate/Gift Tax Rate Schedule				State Death Tax Credit Rate Schedule			
If the amount of Taxable Estate/Gift (\$1,000s)		then for the tentative tax		If the Adjusted Taxable Estate* (\$1,000s)		then for the maximum tax credit	
is over	but not over	enter	the amount over	is over	but not over	enter	the amount over
0	10	\$0 + 18.0%	\$0	0	40	\$0 + 0.0%	\$0
10	20	1,800 + 20.0%	10	40	90	0 + 0.8%	40
20	40	3,800 + 22.0%	20	90	140	400 + 1.6%	90
40	60	8,200 + 24.0%	40	140	240	1,200 + 2.4%	140
60	80	13,000 + 26.0%	60	240	440	3,600 + 3.2%	240
80	100	18,200 + 28.0%	80	440	640	10,000 + 4.0%	440
100	150	23,800 + 30.0%	100	640	840	18,000 + 4.8%	640
150	250	38,800 + 32.0%	150	840	1,040	27,600 + 5.6%	840
250	500	70,800 + 34.0%	250	1,040	1,540	38,800 + 6.4%	1,040
500	750	155,800 + 37.0%	500	1,540	2,040	70,800 + 7.2%	1,540
750	1,000	248,300 + 39.0%	750	2,040	2,540	106,800 + 8.0%	2,040
1,000	1,250	345,800 + 41.0%	1,000	2,540	3,040	146,800 + 8.8%	2,540
1,250	1,500	448,300 + 43.0%	1,250	3,040	3,540	190,800 + 9.6%	3,040
1,500	2,000	555,800 + 45.0%	1,500	3,540	4,040	238,800 + 10.4%	3,540
2,000	2,500	780,800 + 49.0%	2,000	4,040	5,040	290,800 + 11.2%	4,040
2,500	3,000	1,025,800 + 53.0%	2,500	5,040	6,040	402,800 + 12.0%	5,040
3,000		1,290,800 + 55.0%	3,000	6,040	7,040	522,800 + 12.8%	6,040
				7,040	8,040	650,800 + 13.6%	7,040
				8,040	9,040	786,800 + 14.4%	8,040
				9,040	10,040	930,800 + 15.2%	9,040
				10,040		1,082,800 + 16.0%	10,040

* The adjusted taxable estate is equal to the taxable estate less \$60,000.

Table 2				
Federal Marginal Tax Rates After Unified Credit and the State Death Tax Credit, 1999				
Taxable Estate (\$000's)		Estate/Gift Tax Rate (%) (1)	State Death Tax Credit Rate (%) (2)	Net Estate Tax Rate (%) (3)
over	but not over			
Under	650	0.00	Varies	0.00
650	700	37.0	4.0	33.0
700	750	37.0	4.8	32.2
750	900	39.0	4.8	34.2
900	1,000	39.0	5.6	33.4
1,000	1,100	41.0	5.6	35.4
1,100	1,250	41.0	6.4	34.6
1,250	1,500	43.0	6.4	36.6
1,500	1,600	45.0	6.4	38.6
1,600	2,000	45.0	7.2	37.8
2,000	2,100	49.0	7.2	41.8
2,100	2,500	49.0	8.0	41.0
2,500	2,600	53.0	8.0	45.0
2,600	3,000	53.0	8.8	44.2
3,000	3,100	55.0	8.8	46.2
3,100	3,600	55.0	9.6	45.4
3,600	4,100	55.0	10.4	44.6
4,100	5,100	55.0	11.2	43.8
5,100	6,100	55.0	12.0	43.0
6,100	7,100	55.0	12.8	42.2
7,100	8,100	55.0	13.6	41.4
8,100	9,100	55.0	14.4	40.6
9,100	10,000	55.0	15.2	39.8
10,000	10,100	60.0	15.2	44.8
10,100	17,184*	60.0	16.0	44.0
17,184*	and over	55.0	16.0	39.0

* 21,040 between 1988 and 1997.

Ratio of After-tax Bequests to After-tax Gifts												
	Years (n)											
β	0	1	2	3	5	10	15	20	25	30	35	40
0.00	1.000	0.994	0.989	0.985	0.758	0.806	0.842	0.868	0.887	0.900	0.910	0.916
0.25	1.067	1.057	1.049	1.041	0.792	0.837	0.871	0.895	0.913	0.925	0.933	0.939
0.50	1.143	1.129	1.116	1.104	0.831	0.873	0.904	0.926	0.942	0.953	0.960	0.966
0.75	1.231	1.211	1.193	1.177	0.875	0.913	0.941	0.961	0.975	0.985	0.991	0.996
1.00	1.333	1.306	1.282	1.260	0.925	0.959	0.983	1.001	1.013	1.021	1.027	1.031

$\pi=0.08$, $\tau_c=0.25$, and $\tau_e=\tau_g=0.55$.

	Years (<i>n</i>)											
β	0	1	2	3	5	10	15	20	25	30	35	40
0.00	1.000	0.969	0.942	0.918	0.697	0.697	0.697	0.697	0.697	0.697	0.697	0.697
0.25	1.000	0.969	0.942	0.918	0.697	0.697	0.697	0.697	0.697	0.697	0.697	0.697
0.50	1.000	0.969	0.942	0.918	0.697	0.697	0.697	0.697	0.697	0.697	0.697	0.697
0.75	1.000	0.969	0.942	0.918	0.697	0.697	0.697	0.697	0.697	0.697	0.697	0.697
1.00	1.000	0.969	0.942	0.918	0.697	0.697	0.697	0.697	0.697	0.697	0.697	0.697
$\pi=0.08$, $\tau_c=0$, and $\tau_e=\tau_g=0.55$.												

Table 4												
Ratio of After-tax Bequests to After-tax Gifts: Account for State Gift Taxes												
	Years (<i>n</i>)											
β	0	1	2	3	5	10	15	20	25	30	35	40
0.00	1.220	1.195	1.173	1.154	0.779	0.828	0.864	0.892	0.911	0.925	0.934	0.941
0.25	1.293	1.264	1.237	1.214	0.811	0.859	0.895	0.921	0.939	0.952	0.962	0.968
0.50	1.377	1.341	1.310	1.282	0.848	0.894	0.929	0.954	0.972	0.984	0.993	0.999
0.75	1.473	1.430	1.392	1.359	0.889	0.934	0.967	0.991	1.008	1.020	1.029	1.034
1.00	1.584	1.532	1.487	1.448	0.937	0.980	1.012	1.035	1.051	1.063	1.070	1.076
$\pi = 0.08, \tau_c = 0.25, \tau_e = 0.581, \tau_g = 0.71$												

Table 4A			
Maximum State Gift Tax Rate (Percent)			
State	General	On Children	Comments
Connecticut	6	6	Introduced in 1991
Delaware	6	6	
Louisiana	3	3	
New York	21	21	Expires in 2000
North Carolina	17	12	
South Carolina	8	8	Expired in 1992
Tennessee	16	9.5	
Wisconsin	20	12.5	Phased-out between 1988 and 1992

Table 5	
Ratio of After-tax of Bequests to and Gifts by Surviving Spouse to After-tax Gifts by Married Couple	

	Years (n)
--	---------------

β	0	1	2	3	5	10	15	20	25	30	35	40
0.00	1.434	1.426	1.418	1.412	1.087	1.155	1.207	1.244	1.271	1.291	1.304	1.313
0.25	1.529	1.516	1.503	1.492	1.136	1.200	1.248	1.283	1.308	1.326	1.338	1.347
0.50	1.639	1.618	1.600	1.583	1.191	1.251	1.295	1.327	1.350	1.366	1.377	1.384
0.75	1.765	1.736	1.710	1.687	1.254	1.309	1.349	1.377	1.397	1.412	1.421	1.428
1.00	1.912	1.872	1.838	1.807	1.326	1.374	1.410	1.435	1.452	1.464	1.473	1.479

$\pi=0.08$, $\tau_c=0.25$, $\tau_e=0$, $\tau_e=0.55$ for gift tax when $n \leq 3$, and $\tau_e=0.55$.

Table 6A

Ratio of Combined After-tax Bequests to After-tax Gifts of Closely Held Businesses
(Valuation Discounts Apply)

	Years (<i>n</i>)											
β	0	1	2	3	5	10	15	20	25	30	35	40
0.00	0.949	0.952	0.955	0.958	0.813	0.864	0.902	0.931	0.951	0.965	0.975	0.982
0.25	1.016	1.016	1.016	1.016	0.852	0.898	0.933	0.958	0.975	0.988	0.997	1.003
0.50	1.093	1.089	1.085	1.081	0.896	0.937	0.966	0.988	1.003	1.014	1.021	1.026
0.75	1.183	1.173	1.164	1.155	0.946	0.98	1.004	1.022	1.034	1.043	1.048	1.052
1.00	1.288	1.271	1.255	1.241	1.002	1.028	1.047	1.06	1.07	1.076	1.08	1.083

$\pi = 0.08$, $\tau_c = 0.25$, $\tau_g = 0.385$, $\tau_e = 0.385$, $\tau_e = 0.55$ for gift tax when $n \leq 3$; $\tau_c = 0.25$ on fraction of wealth escaping estate taxation.

Table 6B

Ratio of After-tax Bequests to After-tax Gifts of Closely Held Businesses
(Estate Tax Deferred)

	Year of Death (m)											
β	0	1	2	3	5	10	15	20	25	30	35	40
0.00	1.081	1.075	1.069	1.064	0.890	0.919	0.942	0.958	0.970	0.979	0.984	0.988
0.25	1.122	1.114	1.107	1.100	0.913	0.942	0.963	0.979	0.990	0.998	1.004	1.007
0.50	1.169	1.159	1.149	1.141	0.938	0.967	0.988	1.003	1.013	1.021	1.026	1.029
0.75	1.224	1.210	1.198	1.187	0.968	0.995	1.015	1.029	1.039	1.046	1.051	1.054
1.00	1.288	1.271	1.255	1.241	1.002	1.028	1.047	1.060	1.070	1.076	1.080	1.083

$\pi = 0.08$, $\tau_c = 0.25$, $\tau_g = 0.55$, $\tau_e = 0.383$, $\tau_e = 0.55$ for gift tax when $m \leq 3$, and $m = n - 20$.

Table 7			
Sample Statistics for Selected Variables (Standard Deviations in Parentheses)			
Item	Observations		
	All	Without Gifts	With Gifts
Wealth (\$Millions)	10.7286	7.7293	15.3489
	(23.5524)	(14.2543)	(32.5851)
Gifts (\$Millions)	0.2934	0	0.7455
	(1.5229)	0	(2.3577)
Gift/Wealth	0.0204	0	0.0517
	(0.0567)	0	(0.0808)
Age	75.6369	74.5084	77.3754
	(11.0482)	(11.7565)	(9.6081)
Widowed	0.4480	0.4097	0.5070
	(0.4974)	(0.4919)	(0.5002)
Cash Share	0.2755	0.2679	0.2872
	(0.2363)	(0.2376)	(0.2339)
Gift Tax Rate (τ_g)	0.5389	0.5197	0.5685
	(0.1245)	(0.1450)	(0.0743)
Estate Tax Rate (τ_e)	0.5232	0.5005	0.5581
	(0.1187)	(0.1399)	(0.0601)
Capital Gains Tax Rate (τ_c)	0.3140	0.3157	0.3113
	(0.0246)	(0.0245)	(0.0246)
Relative Price of Gifts, Equation (11)	0.9009	0.9327	0.8517
	(0.1551)	(0.1705)	(0.1110)
Business/Wealth	0.1355	0.1322	0.1407
	(0.2377)	(0.2358)	(0.2406)
Observations	2,355	1,428	927

Table 8

Sample Attributes by Size of Wealth and Giving Status

Size of wealth (\$1000s)		Observations			Sample Mean									
		All	with Gifts		Wealth (\$1000s)	Gifts (\$1000s)	Gifts/ Wealth	Gift Tax Rate	Estate Tax Rate	Gains Tax Rate	Price of Gifts	Fraction Widowed	Age	Business Share
			Number	Percent										
Individuals Reporting Gifts														
0	1,000	28	28	100	799	87	10.4	37.9	34.9	30.8	108.0	67.9	79	7.7
1,000	2,500	17	17	100	1,586	161	8.9	45.5	44.7	30.9	95.4	47.1	81	14.3
2,500	5,000	53	53	100	4,428	125	2.9	56.9	55.3	31.0	88.4	45.3	73	13.1
5,000	10,000	458	458	100	6,951	358	5.1	57.4	55.4	31.2	86.5	53.7	77	12.9
10,000	20,000	228	228	100	13,895	646	4.5	58.6	60.5	31.3	77.5	48.7	78	14.0
20,000	50,000	105	105	100	30,041	1,919	6.2	57.4	55.4	31.0	86.9	41.9	77	17.5
50,000	*****	38	38	100	116,810	4,379	4.5	57.3	55.4	30.7	85.5	47.4	78	24.6
All		927	927	100	15,349	745	5.0	56.8	55.8	31.1	85.2	50.7	77	14.1
Individuals Not Reporting Gifts														
0	1,000	266	0	0	691	0	0.0	29.9	27.3	31.5	114.2	60.5	76	4.6
1,000	2,500	106	0	0	1,425	0	0.0	44.6	44.4	31.5	99.0	50.0	76	5.5
2,500	5,000	170	0	0	4,259	0	0.0	58.0	55.8	32.0	91.0	37.1	70	14.2
5,000	10,000	640	0	0	6,766	0	0.0	57.9	55.5	31.5	88.5	35.5	75	16.0
10,000	20,000	169	0	0	13,278	0	0.0	59.1	60.1	31.2	79.2	31.4	75	16.4
20,000	50,000	59	0	0	28,181	0	0.0	61.0	56.9	32.3	88.9	42.4	77	20.1
50,000	*****	18	0	0	96,756	0	0.0	59.7	56.1	31.4	89.5	16.7	77	24.7
All		1,428	0	0	7,729	0	0.0	52.0	50.1	31.6	93.3	41.0	75	13.2
All Individuals														
0	1,000	294	28	9.5	701	8	1.0	30.6	28.0	31.4	113.6	61.2	76	4.9
1,000	2,500	123	17	13.8	1,448	22	1.2	44.7	44.4	31.4	98.5	49.6	77	6.7
2,500	5,000	223	53	23.8	4,299	30	0.7	57.7	55.7	31.7	90.4	39.0	71	14.0
5,000	10,000	1,098	458	41.7	6,843	149	2.1	57.7	55.4	31.4	87.6	43.1	76	14.7
10,000	20,000	397	228	57.4	13,632	371	2.6	58.8	60.3	31.3	78.2	41.3	76	15.0
20,000	50,000	164	105	64.0	29,372	1,229	4.0	58.6	55.9	31.5	87.6	41.8	76	18.8
50,000	*****	56	38	67.9	110,364	2,971	3.1	58.1	55.6	30.9	86.8	37.5	78	24.7
All		2,355	927	39.4	10,729	293	2.0	53.9	52.3	31.4	90.1	44.8	76	13.6

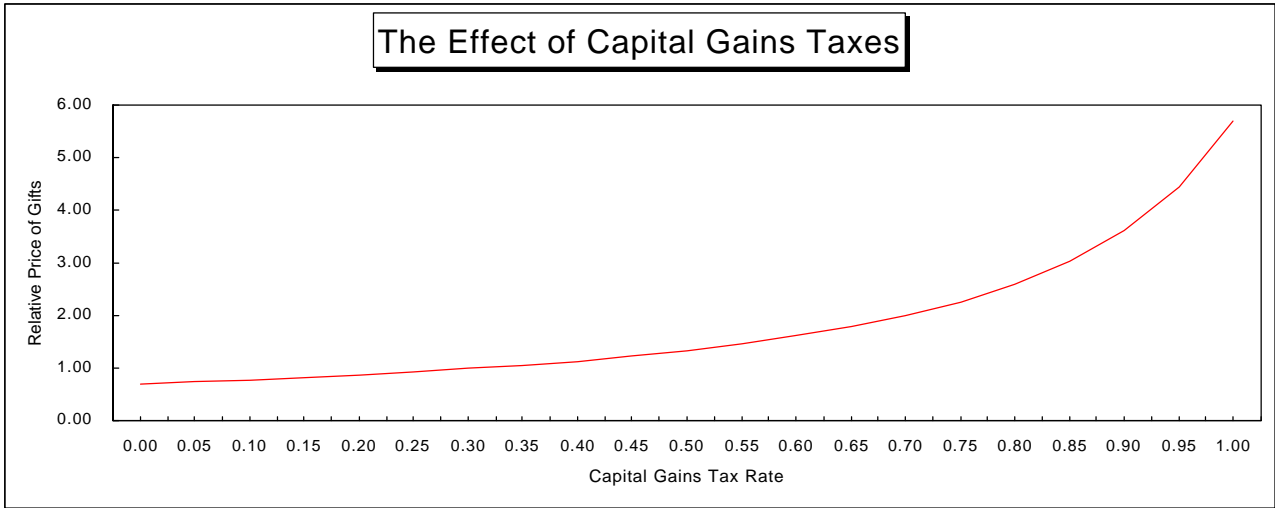
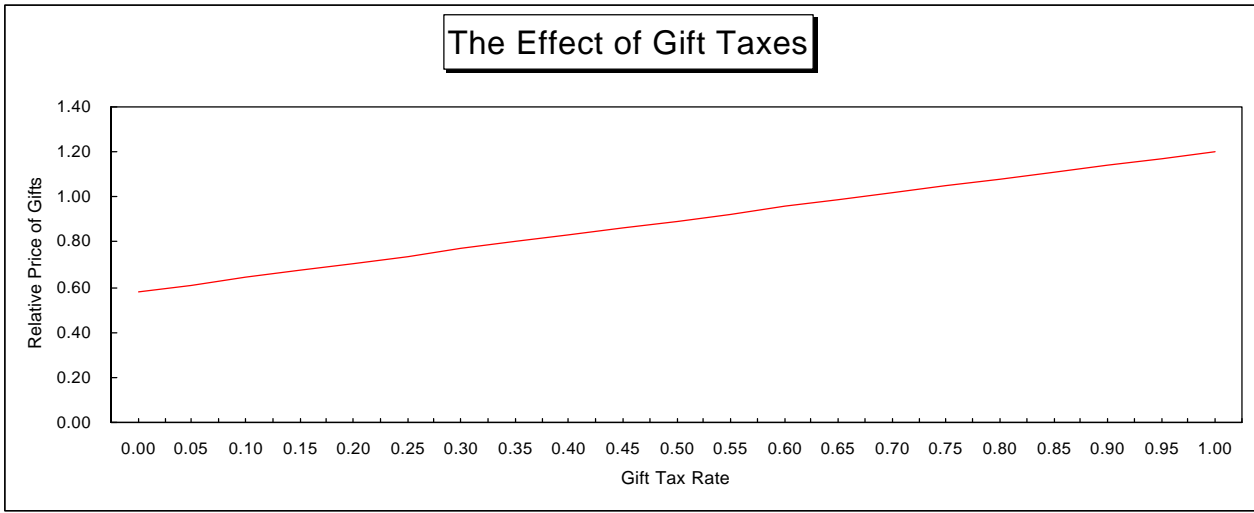
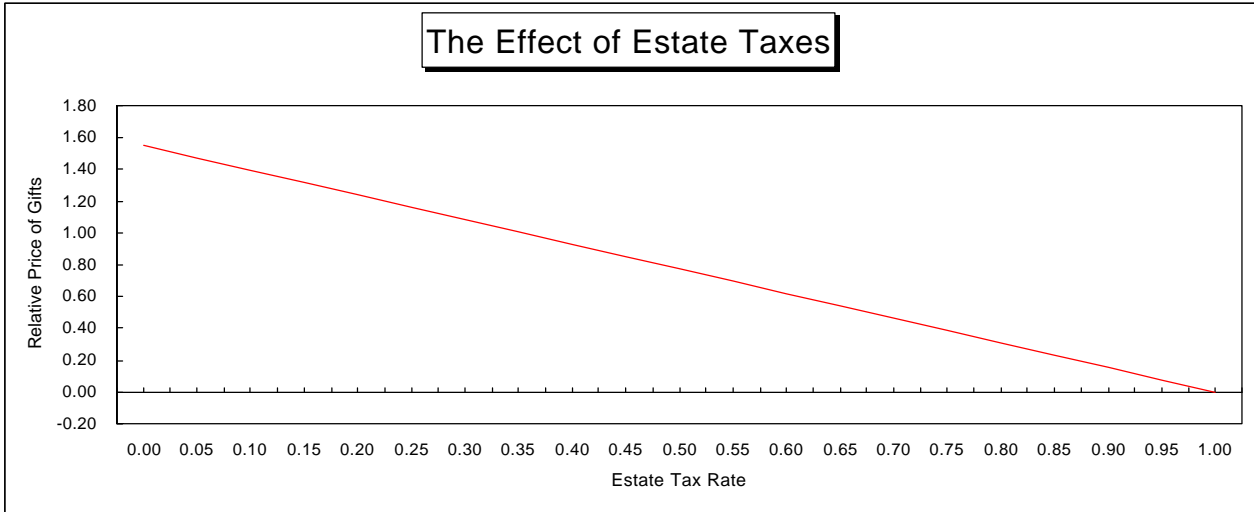
Table 9				
Probability of Making Gifts by Price of Gifts				
Relative Price of Gifts*		Percent with Gifts	Standard Deviation	Sample Size
Under	0.75	0.54	0.03	228
0.75	0.80	0.53	0.03	306
0.80	0.85	0.48	0.02	437
0.85	0.90	0.43	0.02	421
0.90	0.95	0.37	0.03	319
0.95	1.00	0.32	0.03	231
1.00	1.05	0.21	0.03	162
1.05	1.10	0.15	0.04	94
1.10	and over	0.06	0.02	157
All		0.39	0.01	2,355

* Price as defined in equation (11).

Table 10						
The Effects of Taxes on Lifetime Gifts (Dependent Variable: Lifetime Gifts/Wealth)						
Variable	Generalized Tobit				FIML Tobit	
	Probit IV		2SLS			
	Coefficient	Standard Error	Coefficient	Standard Error	Coefficient	Standard Error
Constant	-6.7631*	0.6198	-0.4589	0.3903	-0.4510*	0.0559
<i>ln</i> Wealth	0.4111*	0.0429	0.0231	0.0203	0.0257*	0.0038
Married	-0.3016*	0.0624	-0.0557*	0.0163	-0.0378*	0.0054
Number of Children	0.0282	0.0221	0.0025	0.0034	0.0022	0.0021
Age< 55	-0.7879*	0.2464	-0.0746	0.0582	-0.0617*	0.0258
55≤Age< 65	-0.1419	0.1226	-0.0224	0.0184	-0.0148	0.0135
65≤Age< 75	0.0193	0.0900	0.0001	0.0120	-0.0001	0.0090
75≤Age< 85	0.1199	0.0708	0.0206	0.0107	0.0145*	0.0060
Business Share	0.0459	0.1230	0.0196	0.0164	0.0133	0.0116
Relative Price of Gifts	-0.9749*	0.4043	-0.2030*	0.0707	-0.1328*	0.0374
λ	--	--	0.1404	0.0741	--	--
σ	--	--	--	--	0.1000	0.0013
F(z)	0.3718				0.3205	
Log Likelihood	-1382		1011		6546	
Observations	2355		927		2355	

* Significant at the 5 percent level.

Figure 1. The Effect of Taxes on the Relative Price of Gifts
(20-year Holding Period, 8 Percent Appreciation Rate, and Accrued Gains Share of 50 Percent)



Appendix A

The Effects of Taxes on the Relative Price of Gifts

1. Effect of the estate tax on the relative price:

Define A as:

$$A = \tau_c - \beta \tau_c + \beta \tau_c \tau_g + (1 + \pi)^n - \tau_c (1 + \pi)^n > 0$$

then differentiating the relative price of gifts with respect to the estate tax rate yields,

$$\frac{\partial(P_G / P_B)}{\partial \tau_e} = - \frac{(1 - \beta \tau_c + \tau_g) (1 + \pi)^n}{(1 - \beta \tau_c) A}$$

which is unambiguously negative as long as the capital gains tax rate τ_c is less than 1.

2. Effect of the gift tax on the relative price:

Differentiating the relative price of gifts with respect to the gift tax rate yields,

$$\frac{\partial(P_G / P_B)}{\partial \tau_g} = \frac{-\beta \tau_c (1 - \tau_e)(1 - \beta \tau_c + \tau_g) (1 + \pi)^n + (1 - \tau_e) (1 + \pi)^n A}{(1 - \beta \tau_c) A^2}$$

which is always positive for reasonable values of tax rates ($\tau_c < 1$, $\tau_e < 1$, and $\tau_g < 1$).

3. Effect of the capital gains tax on the relative price:

Differentiating the relative price of gifts with respect to the capital gains tax rate yields,

$$\begin{aligned} \frac{\partial(P_G / P_B)}{\partial \tau_c} = & \frac{(1 - \tau_e)(1 - \beta \tau_c + \tau_g) (1 + \pi)^n (\beta - \beta \tau_c + (1 + \pi)^n - 1)}{(1 - \beta \tau_c) A^2} \\ & + \frac{-\beta (1 - \tau_e) (1 + \pi)^n (1 - \beta \tau_c) + \beta (1 - \tau_e)(1 - \beta \tau_c + \tau_g) (1 + \pi)^n}{(1 - \beta \tau_c)^2 A} \end{aligned}$$

The first term is positive. The second term is also positive as $(1 - \beta \tau_c) < (1 - \beta \tau_c + \tau_g)$, given $\tau_g > 0$ and $\tau_c < 1$. Higher capital gains taxes raise the price of gifts.

Appendix B: State Estate and InheritanceTax Rates, 1987

Taxable Estate	Connecticut	Delaware	Idaho	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maryland	Massachusetts
	Inheritance	Inheritance	Inheritance	Inheritance	Inheritance	Inheritance	Inheritance	Inheritance	Inheritance	Estate
10,100,000 and Over	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1600
10,000,000 10,100,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1600
9,100,000 10,000,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1600
9,000,000 9,100,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1600
8,100,000 9,000,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1600
8,000,000 8,100,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1600
7,100,000 8,000,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1600
7,000,000 7,100,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1600
6,100,000 7,000,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1600
6,000,000 6,100,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1600
5,100,000 6,000,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1600
5,000,000 5,100,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1600
4,100,000 5,000,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1600
4,000,000 4,100,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1600
3,600,000 4,000,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1500
3,500,000 3,600,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1500
3,200,000 3,500,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1500
3,100,000 3,200,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1500
3,000,000 3,100,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1500
2,700,000 3,000,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1500
2,600,000 2,700,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1500
2,500,000 2,600,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1500
2,200,000 2,500,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1500
2,100,000 2,200,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1500
2,000,000 2,100,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1500
1,700,000 2,000,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1400
1,600,000 1,700,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1400
1,500,000 1,600,000	0.1144	0.0600	0.1500	0.1000	0.0800	0.0500	0.1000	0.0300	0.0200	0.1400
1,400,000 1,500,000	0.1144	0.0600	0.1500	0.0800	0.0800	0.0500	0.1000	0.0300	0.0200	0.1400
1,100,000 1,400,000	0.1144	0.0600	0.1500	0.0800	0.0800	0.0500	0.1000	0.0300	0.0200	0.1400
1,000,000 1,100,000	0.1144	0.0600	0.1500	0.0800	0.0800	0.0500	0.1000	0.0300	0.0200	0.1400
900,000 1,000,000	0.1001	0.0600	0.1500	0.0700	0.0800	0.0500	0.1000	0.0300	0.0200	0.1300
800,000 900,000	0.1001	0.0600	0.1500	0.0700	0.0800	0.0500	0.1000	0.0300	0.0200	0.1300
750,000 800,000	0.1001	0.0600	0.1500	0.0700	0.0800	0.0500	0.1000	0.0300	0.0200	0.1200
700,000 750,000	0.1001	0.0600	0.1500	0.0700	0.0800	0.0500	0.1000	0.0300	0.0200	0.1200
600,000 700,000	0.1001	0.0600	0.1500	0.0600	0.0800	0.0500	0.1000	0.0300	0.0200	0.1200
500,000 600,000	0.0858	0.0600	0.1500	0.0600	0.0800	0.0500	0.1000	0.0300	0.0200	0.1100
440,000 500,000	0.0858	0.0600	0.1000	0.0500	0.0800	0.0400	0.0800	0.0300	0.0200	0.1100
400,000 440,000	0.0858	0.0600	0.1000	0.0500	0.0800	0.0400	0.0800	0.0300	0.0200	0.1100
300,000 400,000	0.0715	0.0600	0.1000	0.0500	0.0800	0.0400	0.0800	0.0300	0.0200	0.1000

Appendix B: State Estate and InheritanceTax Rates, 1987

Taxable Estate		Michigan	Mississippi	Montana	Nebraska	New Hampshire	New Jersey	New York	North Carolina	Ohio	Oklahoma
		Inheritance	Estate	Inheritance	Inheritance	Inheritance	Inheritance	Estate	Inheritance	Estate	Estate
10,100,000 and Over		0.1000	0.1600	0.0800	0.0100	0.0000	0.1600	0.2100	0.1200	0.0700	0.1000
10,000,000	10,100,000	0.1000	0.1600	0.0800	0.0100	0.0000	0.1600	0.2000	0.1200	0.0700	0.1000
9,100,000	10,000,000	0.1000	0.1520	0.0800	0.0100	0.0000	0.1600	0.2000	0.1200	0.0700	0.0900
9,000,000	9,100,000	0.1000	0.1520	0.0800	0.0100	0.0000	0.1600	0.1900	0.1200	0.0700	0.0900
8,100,000	9,000,000	0.1000	0.1444	0.0800	0.0100	0.0000	0.1600	0.1900	0.1200	0.0700	0.0900
8,000,000	8,100,000	0.1000	0.1444	0.0800	0.0100	0.0000	0.1600	0.1800	0.1200	0.0700	0.0900
7,100,000	8,000,000	0.1000	0.1360	0.0800	0.0100	0.0000	0.1600	0.1800	0.1200	0.0700	0.0900
7,000,000	7,100,000	0.1000	0.1360	0.0800	0.0100	0.0000	0.1600	0.1700	0.1200	0.0700	0.0900
6,100,000	7,000,000	0.1000	0.1280	0.0800	0.0100	0.0000	0.1600	0.1700	0.1200	0.0700	0.0900
6,000,000	6,100,000	0.1000	0.1280	0.0800	0.0100	0.0000	0.1600	0.1600	0.1200	0.0700	0.0900
5,100,000	6,000,000	0.1000	0.1200	0.0800	0.0100	0.0000	0.1600	0.1600	0.1200	0.0700	0.0900
5,000,000	5,100,000	0.1000	0.1200	0.0800	0.0100	0.0000	0.1600	0.1500	0.1200	0.0700	0.0900
4,100,000	5,000,000	0.1000	0.1120	0.0800	0.0100	0.0000	0.1600	0.1500	0.1200	0.0700	0.0850
4,000,000	4,100,000	0.1000	0.1120	0.0800	0.0100	0.0000	0.1600	0.1400	0.1200	0.0700	0.0850
3,600,000	4,000,000	0.1000	0.1040	0.0800	0.0100	0.0000	0.1600	0.1400	0.1200	0.0700	0.0850
3,500,000	3,600,000	0.1000	0.1040	0.0800	0.0100	0.0000	0.1600	0.1300	0.1200	0.0700	0.0850
3,200,000	3,500,000	0.1000	0.0960	0.0800	0.0100	0.0000	0.1600	0.1300	0.1200	0.0700	0.0850
3,100,000	3,200,000	0.1000	0.0960	0.0800	0.0100	0.0000	0.1500	0.1300	0.1200	0.0700	0.0850
3,000,000	3,100,000	0.1000	0.0960	0.0800	0.0100	0.0000	0.1500	0.1200	0.1200	0.0700	0.0850
2,700,000	3,000,000	0.1000	0.0880	0.0800	0.0100	0.0000	0.1500	0.1200	0.1100	0.0700	0.0800
2,600,000	2,700,000	0.1000	0.0880	0.0800	0.0100	0.0000	0.1400	0.1200	0.1100	0.0700	0.0800
2,500,000	2,600,000	0.1000	0.0880	0.0800	0.0100	0.0000	0.1400	0.1100	0.1100	0.0700	0.0800
2,200,000	2,500,000	0.1000	0.0800	0.0800	0.0100	0.0000	0.1400	0.1100	0.1000	0.0700	0.0800
2,100,000	2,200,000	0.1000	0.0800	0.0800	0.0100	0.0000	0.1300	0.1100	0.1000	0.0700	0.0800
2,000,000	2,100,000	0.1000	0.0800	0.0800	0.0100	0.0000	0.1300	0.1000	0.1000	0.0700	0.0800
1,700,000	2,000,000	0.1000	0.0720	0.0800	0.0100	0.0000	0.1300	0.1000	0.0900	0.0700	0.0800
1,600,000	1,700,000	0.1000	0.0720	0.0800	0.0100	0.0000	0.1200	0.1000	0.0900	0.0700	0.0800
1,500,000	1,600,000	0.1000	0.0720	0.0800	0.0100	0.0000	0.1200	0.0900	0.0900	0.0700	0.0800
1,400,000	1,500,000	0.1000	0.0640	0.0800	0.0100	0.0000	0.1200	0.0900	0.0800	0.0700	0.0800
1,100,000	1,400,000	0.1000	0.0640	0.0800	0.0100	0.0000	0.1100	0.0900	0.0800	0.0700	0.0800
1,000,000	1,100,000	0.1000	0.0640	0.0800	0.0100	0.0000	0.1000	0.0800	0.0800	0.0700	0.0800
900,000	1,000,000	0.1000	0.0560	0.0800	0.0100	0.0000	0.1000	0.0800	0.0700	0.0700	0.0750
800,000	900,000	0.1000	0.0560	0.0800	0.0100	0.0000	0.0900	0.0700	0.0700	0.0700	0.0750
750,000	800,000	0.1000	0.0480	0.0800	0.0100	0.0000	0.0900	0.0700	0.0700	0.0700	0.0750
700,000	750,000	0.0800	0.0480	0.0800	0.0100	0.0000	0.0900	0.0700	0.0700	0.0700	0.0700
600,000	700,000	0.0800	0.0480	0.0800	0.0100	0.0000	0.0800	0.0600	0.0700	0.0700	0.0700
500,000	600,000	0.0800	0.0400	0.0800	0.0100	0.0000	0.0800	0.0600	0.0700	0.0700	0.0700
440,000	500,000	0.0700	0.0400	0.0800	0.0100	0.0000	0.0700	0.0500	0.0600	0.0600	0.0650
400,000	440,000	0.0700	0.0400	0.0800	0.0100	0.0000	0.0700	0.0500	0.0600	0.0600	0.0650
300,000	400,000	0.0700	0.0320	0.0800	0.0100	0.0000	0.0700	0.0500	0.0600	0.0600	0.0650

Appendix B: State Estate and InheritanceTax Rates, 1987

Taxable Estate		Pennsylvania	Rhode Island	South Carolina	South Dakota	Tennessee	Wisconsin
		Inheritance	Estate	Estate	Inheritance	Inheritance	Inheritance
10,100,000 and Over		0.0600	0.1914	0.0800	0.0750	0.0950	0.1250
10,000,000	10,100,000	0.0600	0.1914	0.0800	0.0750	0.0950	0.1250
9,100,000	10,000,000	0.0600	0.1770	0.0800	0.0750	0.0950	0.1250
9,000,000	9,100,000	0.0600	0.1770	0.0800	0.0750	0.0950	0.1250
8,100,000	9,000,000	0.0600	0.1706	0.0800	0.0750	0.0950	0.1250
8,000,000	8,100,000	0.0600	0.1706	0.0800	0.0750	0.0950	0.1250
7,100,000	8,000,000	0.0600	0.1642	0.0800	0.0750	0.0950	0.1250
7,000,000	7,100,000	0.0600	0.1642	0.0800	0.0750	0.0950	0.1250
6,100,000	7,000,000	0.0600	0.1578	0.0800	0.0750	0.0950	0.1250
6,000,000	6,100,000	0.0600	0.1578	0.0800	0.0750	0.0950	0.1250
5,100,000	6,000,000	0.0600	0.1514	0.0800	0.0750	0.0950	0.1250
5,000,000	5,100,000	0.0600	0.1514	0.0800	0.0750	0.0950	0.1250
4,100,000	5,000,000	0.0600	0.1450	0.0800	0.0750	0.0950	0.1250
4,000,000	4,100,000	0.0600	0.1450	0.0800	0.0750	0.0950	0.1250
3,600,000	4,000,000	0.0600	0.1379	0.0800	0.0750	0.0950	0.1250
3,500,000	3,600,000	0.0600	0.1379	0.0800	0.0750	0.0950	0.1250
3,200,000	3,500,000	0.0600	0.1315	0.0800	0.0750	0.0950	0.1250
3,100,000	3,200,000	0.0600	0.1315	0.0800	0.0750	0.0950	0.1250
3,000,000	3,100,000	0.0600	0.1315	0.0800	0.0750	0.0950	0.1250
2,700,000	3,000,000	0.0600	0.1251	0.0800	0.0750	0.0950	0.1250
2,600,000	2,700,000	0.0600	0.1251	0.0800	0.0750	0.0950	0.1250
2,500,000	2,600,000	0.0600	0.1251	0.0800	0.0750	0.0950	0.1250
2,200,000	2,500,000	0.0600	0.1187	0.0800	0.0750	0.0950	0.1250
2,100,000	2,200,000	0.0600	0.1187	0.0800	0.0750	0.0950	0.1250
2,000,000	2,100,000	0.0600	0.1187	0.0800	0.0750	0.0950	0.1250
1,700,000	2,000,000	0.0600	0.1123	0.0800	0.0750	0.0950	0.1250
1,600,000	1,700,000	0.0600	0.1123	0.0800	0.0750	0.0950	0.1250
1,500,000	1,600,000	0.0600	0.1123	0.0800	0.0750	0.0950	0.1250
1,400,000	1,500,000	0.0600	0.1059	0.0800	0.0750	0.0950	0.1250
1,100,000	1,400,000	0.0600	0.1059	0.0800	0.0750	0.0950	0.1250
1,000,000	1,100,000	0.0600	0.1059	0.0800	0.0750	0.0950	0.1250
900,000	1,000,000	0.0600	0.1008	0.0800	0.0750	0.0950	0.1250
800,000	900,000	0.0600	0.0944	0.0800	0.0750	0.0950	0.1250
750,000	800,000	0.0600	0.0944	0.0800	0.0750	0.0950	0.1250
700,000	750,000	0.0600	0.0864	0.0800	0.0750	0.0950	0.1250
600,000	700,000	0.0600	0.0800	0.0800	0.0750	0.0950	0.1250
500,000	600,000	0.0600	0.0800	0.0800	0.0750	0.0950	0.1250
440,000	500,000	0.0600	0.0656	0.0800	0.0750	0.0950	0.1000
400,000	440,000	0.0600	0.0656	0.0800	0.0750	0.0750	0.1000
300,000	400,000	0.0600	0.0656	0.0800	0.0750	0.0750	0.1000

Appendix C: State GiftTax Rates, 1987

Taxable Gifts	Delaware	Louisiana	New York	North Carolina	South Carolina	Tennessee	Wisconsin
10,100,000 and over	0.060	0.030	0.210	0.120	0.080	0.095	0.125
9,100,000 10,100,000	0.060	0.030	0.200	0.120	0.080	0.095	0.125
8,100,000 9,100,000	0.060	0.030	0.190	0.120	0.080	0.095	0.125
7,100,000 8,100,000	0.060	0.030	0.180	0.120	0.080	0.095	0.125
6,100,000 7,100,000	0.060	0.030	0.170	0.120	0.080	0.095	0.125
5,100,000 6,100,000	0.060	0.030	0.160	0.120	0.080	0.095	0.125
4,100,000 5,100,000	0.060	0.030	0.150	0.120	0.080	0.095	0.125
3,600,000 4,100,000	0.060	0.030	0.140	0.120	0.080	0.095	0.125
3,100,000 3,600,000	0.060	0.030	0.130	0.120	0.080	0.095	0.125
3,000,000 3,100,000	0.060	0.030	0.120	0.120	0.080	0.095	0.125
2,600,000 3,000,000	0.060	0.030	0.120	0.110	0.080	0.095	0.125
2,500,000 2,600,000	0.060	0.030	0.110	0.110	0.080	0.095	0.125
2,100,000 2,500,000	0.060	0.030	0.110	0.100	0.080	0.095	0.125
2,000,000 2,100,000	0.060	0.030	0.100	0.100	0.080	0.095	0.125
1,600,000 2,000,000	0.060	0.030	0.100	0.090	0.080	0.095	0.125
1,500,000 1,600,000	0.060	0.030	0.090	0.090	0.080	0.095	0.125
1,100,000 1,500,000	0.060	0.030	0.090	0.080	0.080	0.095	0.125
1,000,000 1,100,000	0.060	0.030	0.080	0.080	0.080	0.095	0.125
900,000 1,000,000	0.060	0.030	0.080	0.070	0.080	0.095	0.125
700,000 900,000	0.060	0.030	0.070	0.070	0.080	0.095	0.125
600,000 700,000	0.060	0.030	0.060	0.070	0.080	0.095	0.125
500,000 600,000	0.060	0.030	0.060	0.070	0.080	0.095	0.125
440,000 500,000	0.060	0.030	0.050	0.060	0.080	0.095	0.100
300,000 440,000	0.060	0.030	0.050	0.060	0.080	0.075	0.100
240,000 300,000	0.060	0.030	0.040	0.060	0.080	0.075	0.100
200,000 240,000	0.060	0.030	0.040	0.060	0.080	0.065	0.100
150,000 200,000	0.060	0.030	0.040	0.050	0.080	0.065	0.100
100,000 150,000	0.060	0.030	0.030	0.050	0.080	0.065	0.100
50,000 100,000	0.060	0.030	0.030	0.040	0.070	0.065	0.050
40,000 50,000	0.060	0.030	0.030	0.030	0.070	0.065	0.050
25,000 40,000	0.060	0.030	0.030	0.030	0.060	0.055	0.050
15,000 25,000	0.060	0.030	0.020	0.020	0.060	0.055	0.025
10,000 15,000	0.060	0.020	0.020	0.020	0.060	0.055	0.025
0 10,000	0.060	0.020	0.020	0.010	0.060	0.055	0.025

Appendix D

Capital Gains Tax Rates by State, 1987

Alabama	5.00	Missouri	6.00
Alaska	0.00	Montana	11.00
Arizona	3.20	Nebraska	5.90
Arkansas	7.00	Nevada	0.00
California	9.30	New Hampshire	0.00
Colorado	5.00	New Jersey	3.50
Connecticut	2.80	New Mexico	8.50
Delaware	8.80	New York	7.50
District of Columbia	10.00	North Carolina	7.00
Florida	0.00	North Dakota	14.00
Georgia	6.00	Ohio	6.90
Hawaii	10.00	Oklahoma	6.00
Idaho	3.28	Oregon	9.00
Illinois	2.50	Pennsylvania	2.10
Indiana	4.20	Rhode Island	7.58
Iowa	4.31	South Carolina	7.00
Kansas	9.00	South Dakota	0.00
Kentucky	2.40	Tennessee	0.00
Louisiana	6.00	Texas	0.00
Maine	10.00	Utah	7.75
Maryland	4.50	Vermont	8.75
Massachusetts	5.00	Virginia	5.75
Michigan	4.60	Washington	0.00
Minnesota	9.00	West Virginia	6.50
Mississippi	5.00	Wisconsin	2.77
		Wyoming	0.00